

**Amendments to the Claims**

Please amend claims 1, 3, 8, 10, 15 and 17. The currently pending claims after amendment are listed below.

1. (Currently Amended) A method for processing a multidimensional array object comprising array objects, said multidimensional array object and said array objects being digital data objects storable in addressable data storage locations of a digital data processing device, said method comprising the steps of:

managing flags for said multidimensional array object at execution time of a process for elements of said multidimensional array object, said flags ~~representing~~ being dynamically alterable at execution time to represent whether it is possible to optimize a said process for elements of said multidimensional array object according to a current execution state of said process, said process being a defined set of instructions executable by said digital data processing device; and

executing a machine code performing said process, said machine code being selected from among a plurality of machine codes performing said process according to a state of said flags.

2. (Original) The method of claim 1, further comprising:  
inverting said flags when a predetermined condition is no longer met.

1       3.     (Currently Amended) A method for processing a multidimensional array object  
2     comprising array objects, said method comprising the steps of:  
3         managing flags for said multidimensional array object at execution time of a process for  
4     elements of said multidimensional array object, said flags representing whether it is possible to  
5     optimize a said process for elements of said multidimensional array object;  
6         inverting said flags when a predetermined condition is no longer met by execution of said  
7     process; and  
8         executing a machine code corresponding to a state of said flags;  
9         wherein said predetermined condition is whether a base array of a multidimensional array  
10    object is allocated to consecutive memory areas.

1       4.     (Original) The method of claim 2, wherein said machine code is either a machine code  
2     optimized or a machine code not optimized according to said predetermined condition.

1       5.     (Original) The method of claim 2, further comprising:  
2         determining whether said predetermined condition is met when writing to said  
3     multidimensional array object.

1       6.     (Original) The method of claim 2 wherein, further comprising:  
2         if said predetermined condition is met when generating said multidimensional array object,  
3     setting said flags to a generated multidimensional array object.

1 7. (Previously Presented) A method for processing a multidimensional array object  
2 comprising array objects, said method comprising the steps of:  
3 managing flags for said multidimensional array object, said flags representing whether it is  
4 possible to optimize a process for elements of said multidimensional array object;  
5 executing a machine code corresponding to a state of said flags; and  
6 if there is possibility of multi-thread processing of said multidimensional array object,  
7 generating a machine code for storing on a stack a dummy reference to said multidimensional  
8 array during execution of an optimization code.

1 8. (Currently Amended) A storage medium storing a program for a multidimensional array  
2 object comprising array objects, said multidimensional array object and said array objects being  
3 digital data objects storable in addressable data storage locations of a computer, wherein said  
4 program, when read and executed by said computer, comprises steps of:  
5 managing flags for said multidimensional array object at execution time of a process for  
6 elements of said multidimensional array object, said flags ~~representing that~~ being dynamically  
7 alterable at execution time to represent whether it is possible to optimize a said process for  
8 elements of said multidimensional array object according to a current execution state of said  
9 process, said process being a defined set of instructions executable by said computer; and  
10 executing a machine code performing said process, said machine code being selected from  
11 among a plurality of machine codes performing said process according to a state of said flags.

1 9. (Original) The storage medium of claim 8, further comprising:  
2 inverting said flags when a predetermined condition is no longer met.

1 10. (Currently Amended) A storage medium storing a program for a multidimensional array  
2 object comprising array objects, wherein said program, when read and executed by a computer,  
3 comprises steps of:

4 managing flags for said multidimensional array object at execution time of a process for  
5 elements of said multidimensional array object, said flags representing that it is possible to  
6 optimize a said process for elements of said multidimensional array object;

7 inverting said flags when a predetermined condition is no longer met by execution of said  
8 process; and

9 executing a machine code corresponding to a state of said flags;

10 wherein said predetermined condition is whether a base array of a multidimensional array  
11 object is allocated to consecutive memory areas.

1 11. (Original) The storage medium of claim 9, wherein said machine code is either a machine  
2 code optimized or a machine code not optimized according to said predetermined condition.

1 12. (Original) The storage medium of claim 9, further comprising:  
2 determining whether said predetermined condition is met when writing to said  
3 multidimensional array object.

1 13. (Original) The storage medium of claim 9, further comprising:  
2 if said predetermined condition is met when generating said multidimensional array object,  
3 setting said flags to a generated multidimensional array object.

1 14. (Previously Presented) A storage medium storing a program for a multidimensional array  
2 object comprising array objects, wherein said program, when read and executed by a computer,  
3 comprises steps of:

4 managing flags for said multidimensional array object, said flags representing that it is  
5 possible to optimize a process for elements of said multidimensional array object;

6 executing a machine code corresponding to a state of said flags; and

7 if there is possibility of multi-thread processing of said multidimensional array object,  
8 generating a machine code for storing on a stack a dummy reference to said multidimensional  
9 array during execution of an optimization code.

1 15. (Currently Amended) A computer for processing a multidimensional array object  
2 comprising array objects, said multidimensional array object and said array objects being digital  
3 data objects storable in addressable data storage locations of said computer, said computer  
4 comprising:

5 a central processing unit; and

6 a program, when read and executed by said central processing unit, comprises steps of:

7 managing flags for said multidimensional array object at execution time of a process for  
8 elements of said multidimensional array object, said flags ~~representing that~~ being dynamically  
9 alterable at execution time to represent whether it is possible to optimize a process for elements of  
10 said multidimensional array object according to a current execution state of said process, said  
11 process being a defined set of instructions executable by said computer, and

12 executing a machine code performing said process, said machine code being selected from  
13 among a plurality of machine codes performing said process according to a state of said flags.

1 16. (Original) The computer of claim 15, wherein said program further comprises:  
2 inverting said flags when a predetermined condition is no longer met.

1 17. (Currently Amended) A computer for processing a multidimensional array object  
2 comprising array objects, said computer comprising:  
3 a central processing unit; and  
4 a program, when read and executed by said central processing unit, comprises steps of:  
5 managing flags for said multidimensional array object at execution time of a process for  
6 elements of said multidimensional array object, said flags representing that it is possible to  
7 optimize a said process for elements of said multidimensional array object,  
8 inverting said flags when a predetermined condition is no longer met by execution of said  
9 process; and  
10 executing a machine code corresponding to a state of said flags;  
11 wherein said predetermined condition is whether a base array of a multidimensional array  
12 object is allocated to consecutive memory areas.

1 18. (Original) The computer of claim 16, wherein said machine code is either a machine code  
2 optimized or a machine code not optimized according to said predetermined condition.

1 19. (Original) The computer of claim 16, wherein said program further comprises:  
2 determining whether said predetermined condition is met when writing to said  
3 multidimensional array object.

1 20. (Original) The computer of claim 16, wherein said program further comprises:  
2 if said predetermined condition is met when generating said multidimensional array object,  
3 setting said flags to a generated multidimensional array object.

1       21. (Previously Presented) A computer for processing a multidimensional array object  
2       comprising array objects, said computer comprising:  
3             a central processing unit; and  
4             a program, when read and executed by said central processing unit, comprises steps of:  
5             managing flags for said multidimensional array object, said flags representing that it is  
6       possible to optimize a process for elements of said multidimensional array object,  
7             executing a machine code corresponding to a state of said flags; and  
8             if there is possibility of multi-thread processing of said multidimensional array object,  
9       generating a machine code for storing on a stack a dummy reference to said multidimensional  
10      array during execution of an optimization code.